

### ABSTRACT

**[00051]** The subject invention is directed to a control system for a turboshaft engine utilized in a helicopter which includes means for providing minimum fuel flow to the engine when an overspeed condition is detected at a relatively low altitude (e.g., below 10,000 feet), and means for shutting off fuel flow to the engine, and thus shutting down the engine, when an overspeed, loss of load condition is detected at a relatively high altitude (e.g. above 10,000 feet). The overspeed, loss of load condition is detected along two different engine speed signal paths, including a derivative path and a non-derivative path.